P.P. 2038.

# THE ZOOLOGIST:

A MONTHLY JOURNAL

OF

## NATURAL HISTORY.

FOURTH SERIES .- VOL. IX.

EDITED BY

W. L. DISTANT.

#### LONDON:

WEST, NEWMAN, & CO., 54, HATTON GARDEN. SIMPKIN, MARSHALL, & CO., Ltd.

1905.



### PREFACE.

THE most notable event to ornithologists during the past year has been the meeting of the fourth International Ornithological Congress, which was held in London last June. With that we may couple the interest aroused in the study of Dinosaurs by the presentation of a reproduction of the skeleton of Diplodocus carnegii to the British Museum.

Our present volume exhibits no diminution in the number or value of its contributions, while it is a matter of congratulation to all concerned that few books are now published on the British fauna without at least some, and usually many, references to the pages of 'The Zoologist.' This year several Orders have received considerable attention, and have been the subjects of some permanent contributions.

Mammalia.—Two new species of Gorals from British India have been described; the true position of *Mus rattus* and its British allies has been discussed by one who is doing much on the subject of our insular mammals; the valuable series of papers on the northern Seal and Whale industries have been continued, as well as a host of smaller contributions, which range from the disappearance of a local form of Squirrel in India to a peculiar osteological variety found in the domestic Cat at Yarmouth.

Aves.—Our well-known contributors have continued their county lists and bionomical observations. The birds of Wales have now received very full attention in these pages, and it is strange indeed that so much was hitherto unrecorded on the

3.6

subject; the list of rare visitants has been substantially augmented, and the truth again emphasized that in British ornithology alone new facts and observations still await the diligent field naturalist.

Pisces.—There has been this year a most welcome interest exhibited in relation to British fishes and rare piscine visitants. The most interesting event has been the reappearance of a species of Flying Fish in the estuary of the Thames, and the consequent publication in these pages of a paper containing a full résumé of our knowledge on the subject. It is, however, much to be desired that other yearly reports beyond that from Yarmouth should appear in 'The Zoologist.'

As regards some other and more neglected Orders, we have reason to hope that promised attention will be devoted to them in our next volume.

### CONTENTS.

#### ALPHABETICAL LIST OF CONTRIBUTORS.

APLIN, O. V., F.L.S., M.B.O.U.

Some old Welsh bird notes, 37;
Winter notes from Lleyn, 41,
101; Supplementary notes on
the Ornithology of Lleyn, 170;
Peregrine Falcon in Warwickshire and Oxon, 184; Notes on
the Ornithology of Oxfordshire
(1903), 413, 447; White Wagtail
in Northamptonshire, 463

ARNOLD, E. C.

Water-Pipit at Eastbourne, 142; Rare birds in Norfolk, 466

BARRETT-HAMILTON, G. E. H., Major A query respecting Noctule Bat, 397 BENSON, Rev. CHARLES W., LL.D.

Notes of birds observed at Balbriggan in 1903-04, 174

BENTHAM, CHARLES H.

Nesting habits of the Wren, 107; Surrey notes, 237; Spatula clypeata in Surrey, 435

BERGROTH, E., Dr., C.M.Z.S.

Additions and corrections to the 'Index Zoologicus,' 63

BLATHWAYT, Rev. F. L., M.A., M.B.O.U.

Buffon's Skua in Somerset, 36; Cirl-Bunting in Somerset, 70

BOOTH, HARRY B.

Habits of the Noctule, 427; Cuckoo and Twite, 432

BRADSHAW, GEORGE W.

Peregrine Falcon in Surrey, 464 BRYANT, C. H.

The sounds produced by the Longeared Owl, 265

BUTTERFIELD, E. P.

Breeding habits of the Great and Blue Tits, 846

BUTTERFIELD, W. RUSKIN

Supernumerary nests of the Wren, 140; Position of sitting birds in relation to the wind, 236 Campion, F. W. and H.
The Hawfinch in Epping Forest,

263

CAMPION, HERBERT
The Golden Oriole in Epping
Forest, 232

CLARKE, W. J.

Zoological notes from Scarborough during 1904, 72; Do Partridges migrate?, 314

CORBIN, G. B.

Varieties of Moorhen and Blackbird, 144; Wildfowl on the Hampshire Avon during the winter of 1904-5, 146; Fecundity of fishes, 151; The Redbacked Shrike and its prey, 387; The Black Tern near Ringwood, 393; Summer migrants in Southwestern Hants, 395; Late stay of Swift, 434

COWARD, T. A.

On some habits of Natterer's Bat, 51; Leisler's Bat in Yorkshire, 68; Notes on the Birds of Anglesea, 213, 376, 423; Palmated Newt in Western Carnarvonshire and Bardsey Island, 316; Sorex minutus in Shropshire, 429; Grey Phalarope in Cheshire, 435

CUMMINGS, BRUCE F.

Ornithological notes from North Devon, 467

CUMMINGS, JOHN

Notes from Barnstaple, 110

CUMMINGS, S. G.

Black-headed Gull assuming the hood in winter, 36; Abnormal nests of the Swallow, 121; Curlew-Sandpiper on the Deemarshes in February, 145; Red Grouse in Anglesea, 185; Early migrants near Chester, 190; Breeding habits of the Great and Blue Tits, 430; White Wagtails in autumn in Cheshire, 430

DALGLIESH, GORDON

Great Crested Grebes in Richmond Park, 109

DENT, G.

De Winton's Mouse in Surrey, 69

DISTANT, W. L.

What is the heaviest weight reached by the Rudd?, 270; Biological Suggestions—Extermination in Animal Life, Part I., by natural or non-human agency, 281, 332; The Cuckoo and Twite, 391, 434

ELLISON, Rev. ALLAN, M.A., M.B.O.U.

Birds observed at Grindelwald in January, 129; Nesting habits of the Wren, 141; The Cuckoo and Twite, 389; Reappearance of the Quail in Ireland, 392

ELMS, E. F. M.

Late stay of the Swift, 464

FARREN, WILLIAM

Movement of young Nightjars, 182 FLEMYNG, Rev. WILLIAM W., M.A. Cuckoo at Portlaw, Co. Waterford,

232

FORREST, H. E.

Baillon's Crake in North Wales, 465

FOWLER, W. WARDE, M.A.

Late nesting of Linnet, 346; Nightingales in Algeria singing in August, 430

Fox, W. Storrs, M.A., F.Z.S. Nesting of the Merlin in Derbyshire, 267

GREEN, JOSEPH F., F.Z.S.

The fauna of the "Cedars," Lee, Kent, 253

GROUND, THOMAS

Manx Shearwater in Worcestershire, 394

GURNEY, J. H., F.L.S., F.Z.S.

Ornithological notes from Norfolk (1904), 85; Diary of observations on a young Cuckoo, 164; Carnivorous propensity of the Badger, 231; Hybrid Pochard in Norfolk, 268; Sounds produced by the Eagle Owl, 392

GYNGELL, W.

The autumn songs of the Willow-Wren and the Chiffchaff, 32; The sounds produced by the Long-eared Owl, 183 HARTING, J. E.

The mammals of Great Britain and Ireland, 31

HARVIE-BROWN, J. A., F.R.S.E., F.Z.S.

The sounds produced by the Longeared Owl, 264, 313; Rock-Doves (?) nesting in Rabbits' holes, 313, 351; A query respecting Wild Deer and Dotterels, 437

HERMAN, OTTO

On the migration of birds, 241
HOLLAND, W. J., Rev. D.D., Ph.D.
The largest skeleton of a Dinosaur,

161

JEFFERYS, CHARLES

Late breeding of Barn-Owl, 35

JOHNSTON, T. L.

Early nesting of Dipper, 179; Early arrival of Bernicle Geese on the Solway, 392; Grey Geese near Carlisle, 392

Jourdain, Rev. Francis C. R., M.A., M.B.O.U.

Rough notes on Derbyshire Ornithology (1903-1904), 57; Breeding habits of the Great and Blue Tits, 309; Breeding of the Crossbill in Northamptonshire, 346

Kelso, J. E. H.

Peculiar nests and nesting-sites of the Lapwing, 108

LANGDALE, Rev. H. MARMADUKE

Winter whitening of the Stoat in Britain, 308; late stay of Swift, 388\_\_\_\_\_

LODGE, REG. B.

Whale v. Swordfish and Thresher, 31; Birds nesting in Andalusia, 321, 397; Late Martins' nests, 430; Increase of Goldfinches, 431

LYDEKKER, R., F.R.S., F.Z.S.
The Gorals of India and Burma,

MASEFIELD, JOHN R. B.

Nesting of the Lapwing, 145 MATTINGLEY, ARTHUR H. E.

The animal or animals generally referred to as the "Sea-Serpent," 113

McClymont, J. R., M.A., M.A.O.U.
Monthly notes for 1902, taken in
the South of Tasmania, 124;
Tasmanian notes taken in 1903
—the Little Penguin, 329

McIntosh, Professor, M.D., LL.D., F.R.S., &c.

On budding in animals, 1; On the nesting of the Rock-Dove (?) in a Rabbits' hole at Nevay Park, Forfarshire, 268

MACKEITH, T. THORNTON

Late breeding of Swallow, and birds building in other birds' nests, 69; The Great Crested Grebe in Scotland, 314; Late nest of Yellow Bunting, 347; Nesting of the Dipper in Renfrewshire, 463

MEIKLEJOHN, A. H.

Late stay of Swift, 388; How does the Osprey carry its prey?, 435

MILLAIS, J. G., F.Z.S.

The true position of Mus rattus and its British allies, 201

MILLS, H. HOLROYD

Abnormal nests of the Swallow, 181 MOFFAT, C. B.

The sounds produced by the Longeared Owl, 233, 264; Greenfinch and Hedge-Sparrow rearing each other's young, 431

MORRIS, ROBERT

Nesting of the Dartford Warbler in Sussex, 309

Mouritz, L. B.

Notes on the Ornithology of Richmond Park, Surrey, 147, 187, 349; Dunlin in Surrey, 348

Murie, James, M.D., LL.D., F.L.S. Flying Fish in Medway and Swale (Kent), 401

NEWSTEAD, A.

Albinic form of Starling, 263

NICHOLS, J. B.

Night-Heron, Black-headed Bunting, and Great Sedge-Warbler in Sussex, 267; Dusky Redshank in Kent, Squacco Heron and Icterine Warbler in Sussex, 349

OLDHAM, CHARLES

Oystercatcher inland in Cheshire, 35; Red-throated Diver in Cheshire, 36; Late nesting of the Great Crested Grebe, 37; Ruddy Sheld-drake in Lancashire, 107; Early arrival of the Chiffchaff in Cheshire, 140; Smew in Cheshire, 143; Nesting habits of the Swallow, 181; Pacific Eider in Orkney, 185; Notes on the Birds of Anglesea, 213, 376, 423; The Flight-time of the Noctule, 307; Daubenton's Bat in Denbighshire, 308; Greenshank and Ruff in Cheshire, 393; Black Tern in Cheshire, 393

OLLIS, WILFRED

The Palmated Newt near Hastings, 316

PARKIN, THOMAS

Leach's Petrel in Sussex, 465

PARKIN, W. H.

"The singing haunts and habits of some British birds," 71; Eggdepositing by Cuckoo, 348; Breeding haunts of the Twite, 431

PATTEN, C. J.

Waterhens nesting late in the season, 35

PATTERSON, ARTHUR H., A.M.B.A.

Do Partridges migrate?, 186; Among Norfolk Terns, 258; On a Norfolk heronry, 301; Remarkable Lobster-claw, 350; A Sunday on Breydon, 367; Manx Shearwater at Yarmouth, 395; Malformed Earthworm, 398; Some Fish-notes from Great Yarmouth for 1905, 441; Remarkable Cats' feet, 462; Storm-Petrel at Yarmouth, 465

PEARSE, T.

Increase of Goldfinches in Bedfordshire, 463

PLAYNE, HERBERT C.

How does the Osprey carry its prey? 464

Pocock, R. I., F.Z.S.

The Zoological Society's Gardens, 39, 76, 115, 151, 191, 238, 271, 317, 351, 487, 471

READ, ROBERT H.

Pied Wagtail nesting in a hedge, 33; Birds building in other birds' nests, 33

REID, Capt. SAVILE G.

Obituary notice: Col. L. Howard Irby, 274

RENSHAW, GRAHAM, M.B., F.Z.S. The Réunion Starling, 418

RIVIERE, BERNARD B.

Rock-Doves (?) nesting in Rabbits' holes, 313

ROBERTSON, W. B.

Menagerie medicines, 249

ROBINSON, H. W.

Pacific Eider in Orkney, 143; Beeeaters in Yorkshire, 389

ROPE, G. T.

Variety of the Common Toad, 215 RUSSELL, FLORA

Birds seen in Egypt in December, January, and February, 208

RUSSELL, HAROLD

Abnormal nests of the Swallow, 181; Notes on the Ornithology of Richmond Park, Surrey, 236:

SAXBY, T. EDMONDSTON

Notes from Shetland (from June, 1904, to April, 1905), 188

SHEPPARD, T., F.G.S.
Malformed Earthworm, 470; "A query" (ante, p. 397), 470

SIM, GEORGE

The Little Shrew in Aberdeenshire, 31; Rare birds in Aberdeenshire, 466

SIMPSON, H. DRUMMOND

Sandwich Tern in the Firth of Forth in November, 465

SOUTHWELL, THOMAS, F.Z.S. Notes on the Seal and Whale Fishery in 1904, 22; Notes on the Newfoundland Seal fishery in

1905, 361 STEELE-ELLIOTT, J.

Birds nesting within other birds' nests, 71; Curious nesting of the Wren, 141; Lesser Horse-shoe Bat in Shropshire, 508; The Red-backed Shrike and its prey, 309; The Natterjack Toad in Bedfordshire, 315; Notes on the Green Woodpecker, 347; Breeding habits of birds, 436

STUBBS, FRED

Pacific Eider in Orkney, 142

SWAINSON, E. A.

Autumn song of birds, 71; Nest-

ing of the Merlin in Breconshire, 266

TRUMBULL, JOHN

Notes on land-birds observed on the North Atlantic and Gulf of St. Lawrence (1904), 293

TUCK, Rev. JULIAN G., M.A.

Black-tailed Godwit in Norfolk, 70; Notes from Suffolk, 72; Hairy variety of the Moorhen, 107; Bat swimming, 231; Notes on the Tawny Owl, 263; Mus flavicollis in Suffolk, 309; Albino Starling in Suffolk, 310; Notes on nest-boxes, 314; Notes from Hunstanton, Norfolk, 388; White Stoat at end of September, 429; The Cuckoo and its Fosterparents, 433

WALTON, J. S. T.

Nesting habits of the Wren, 179

WARREN, ROBERT

Seals in Killala Bay and the Moy Estuary, Co. Mayo, 134; The sounds produced by the Longeared Owl, \_34

WATERS, ALBERT H.

Effects of rural depopulation on wild life, 269

WESTALL, W. PERCIVAL

Hooded Crow at St. Albans, 34

WHITAKER, J.

Wood-Pigeons and Stock-Doves at Rainworth, 35; Montagu's Harrier in June, 266; A new Notts bird (Dusky Thrush), 466

Wнуте, R. B.

Tree Sparrows in East Lothian, 464

WILSON, WILLIAM

Egg-depositing by the Cuckoo-an explanation, 310

WROUGHTON, R. C.

Disappearance of a local form of Squirrel, 387

New species of animals described in this volume:-

Urotragus bedfordi, Lydekk. Page 83, Plate I. W. Himalaya. evansi, Lydekk. Page 83. Upper Burma.

#### ALPHABETICAL LIST OF SUBJECTS.

Acanthis linaria, 299; linaria rostrata?, 298 Acanthiza chrysorrhoa, 125 Acanthochæra inauris, 126 Accentor collaris, 130; Hedge, var. (egg), 87; modularis, 149 Accipiter nisus, 349 Acredula rosea, 149 Acrocephalus turdoides, 268 Ægialitis curonica, 209; hiaticola, 101, 111 Æthyia ferina, 210; fuligula, 210 Aix sponsa, 58 Alauda arvensis, 149 Alca torda, 177 Alcedo ispida, 111, 187, 209 Algeria, Nightingales in, singing in August, 430 Aluco flammeus, 176 Ammomanes deserti, 209 Anas boscas, 150, 177, 208 Andalusia, birds nesting in (Plate V.), 321, 397 Anglesea, birds of, 213, 376, 423 Animal life, extermination in, 281, 332 Animal or animals generally referred to as "Sea-Serpent," 113 Animals, budding in, 1; have they a future life?, 157 Anser albifrons, 73, 177, 255; brachyrhynchus, 392 Antarctic Regions 'Discovery' Expedition, Report on Natural History Collections made by, 199 Anthus obscurus, 176; pratensis, 149, 310, 311, 348, 349, 390; spipoletta, 131, 142; trivialis, 149 Apes, half-wild, last male specimen, Apteryx australis mantelli, 272 Aquila chrysaëtus, 74; maculata, 211 Ara macao, 438 Arctictis binturong, 438 Arctogalidia trivirgata, 438 Ardea cinerea, 112, 150, 177, 211; garzetta, 209; ralloides, 349 Argyope trifasciata, 239 Asio accipitrinus, 209; otus, 176, 183, 233, 234, 264, 265, 311 Athene glaux, 209

Atlantic, North, and Gulf of St. Lawrence, land-birds observed on (1904), 293Avocet, 89 Avocets and Spoonbills on Breydon Broad (fig.), 93 Badger, carnivorous propensity, 231 Balænoptera borealis, 29; glacialis, Balbriggan, birds observed at (1903-1904), 174 Barnstaple, notes from, 110 Bat, Daubenton's, in Denbighshire, 308; Leisler's, in Yorkshire, 68; Lesser Horseshoe, in Shropshire, 308; Natterer's, on some habits of, 51; Noctule, flight-time of, 307, query respecting, 397, 470,habits, 427; swimming of, 231 Bee-eater in Yorkshire, 389 Belone vulgaris, 409 Bernicla brenta, 74; canadensis, 74, 150; leucopsis, 392 'Biologia Centrali-Americana,' 276 Biological suggestions - extermination in animal life, 281, 332 Bird-notes, some old Welsh, 37 Bird new to British list (Dusky Thrush), 466 Birds, singing haunts and habits of some British, 71; autumn song of, 71; migration of, 85, 88, 170, 175, 241; observed at Grindelwald in January, 129,—at Balbriggan, 174, -in Egypt, in December, January, and February, 208,—in North Atlantic and Gulf of St. Lawrence, 293; preservation of, from a gardener's point of view, 159; of Anglesea, 213, 376, 423; sitting position of, in relation to wind, 236; nesting within other birds' nests, 33, 69, 71; nesting in Andalusia, 321, 397; breeding habits of, 436; rare, in Norfolk, 466,—in Aberdeenshire, 466 Bitis gabonensis, 353; nasicornis, 353 Bittern, 457

Blackbird, 48; var., 61, 99, 144

Blackcap, 378

BOOKS NOTICED :-

Wanderings in the Great Forests of Borneo — Travels and Researches of a Naturalist in Sarawak, by Odoardo Beccari, translated by Dr. Enrico H. Giglioli, revised and edited by F. H. H. Guillemard, 78

A Synonymic Catalogue of Orthoptera, vol. I. (Forficulidæ, Hemimeridæ, Blattidæ, Mantidæ, Phasmidæ), by W. F. Kirby, 79

The Cambridge Natural History, vol. VII., by S. F. Harmer, W. A. Herdman, T. W. Bridge, and G. A. Boulenger, 118

The Sea-Fishing Industry of England and Wales, by F. G. Aflalo,

Guide to the Gallery of Birds in the Department of Zoology of the British Museum (Natural History), 120

The Fauna and Geography of the Maldive and Laccadive Archipelagoes, being the Account of the Work carried on, and of the Collections made by, an Expedition during the years 1899 and 1900, vols. I. and II., edited by J. Stanley Gardiner, 153

Catalogue of the Noctuidæ in the Collection of the British Museum, by Sir George F. Hampson, Bart.,

Our Country's Animals, and how to Know them, by W. J. Gordon, 155

A Student's Text-Book of Zoology, vol. II., by Adam Sedgwick, 198 British Bird-Life, being popular sketches of every species of bird

now regularly nesting in the British Isles, by W. Percival Westall, 195

The Fauna of British India, including Ceylon and Burma, edited by W. T. Blanford—Butterflies, vol. I., by Lieut.-Col. C. T. Bingham, 196

Mendelism, by R. C. Punnett, 240
The British Tunicata—an unfinished Monograph, by the late
Joshua Alder and the late Albany
Hancock, edited by John Hopkinson, with a history of the
work by Canon A. M. Norman,
819

The Origin and Influence of the Thoroughbred Horse, by William Ridgeway, 399

Travels of a Naturalist in Northern Europe, by J. A. Harvie-Brown, 439

Genera Avium, Parts 1-5, edited by P. Wytsman, 440

The Mammals of Great Britain and Ireland, v. ii., by J. G. Millais, 472

Bradypus tridactylus, 238 Brambling, 457

Breeding, late, of Barn-Owl, 35,— Swallow, 69; habits of birds, 436,— Great and Blue Tits, 309, 346, 430; of Crossbill in Northamptonshire, 346; haunts of Twite, 389, 431

Breydon, a Sunday on, 367 Budding in animals, 1

Bufo calamita, 315; vulgaris, 315 "Bull-dog" codling fish at Great Yarmouth (fig.), 445

Bullfinch, 49

Bunting (Emberiza aureola), in Norfolk, 466; Black-headed, in Sussex, 267; Cirl, in Somerset, 70,—in Oxfordshire, 457; Corn, 49, 384; Lapland, 89; Reed, 49; Rustic, in North of England, 279; Yellow, 49,—late nesting, 347; Snow, in Oxfordshire, 458

Buteo ferox, 211 Buzzard, 47, 456

Caccabis rufa, 186
Cacomantis flabelliformis, 124
Calidris arenaria, 112, 176
Capra ægagrus, 271
Caprimulgus europæus, 88, 148, 182
Carduelis elegans, 149, 187
Casuarius intensus, 40
Cats' feet, remarkable (fig.), 462
"Cedars," Lee, Kent, fauna of, 253
Centetes ecaudatus, 39
Cephalophus coronatus, 238; maxwelli, 238

Cercopithecus æthiops, 438; diana roloway, 238; leucampyx, 271; neglectus, 238; pousarguei, 39, 238; pygerythrus, 438; talapoin, 438; wolfi, 271

438; wolfi, 271 Certhia familiaris, 149 Ceryle rudis, 211 Chaffinch, 49; var., 99 Chelidon urbica, 149, 181 Chenalopex ægyptiaca, 74, 211

Chiffchaff, 379; autumn song, 32; early arrival in Cheshire, 140

Cholæpus hoffmanni, 238 Chough, 49 Chrysomitris citrinella, 91 Ciconia alba, 211; nigra, 211 Cinclus aquaticus, 60, 110, 131, 179, Circus cineraceus, 266

Clangula glaucion, 178 Clupea finta, 442

Clyde faunal area, land-mammals of,

Coccothraustes vulgaris, 263 Columba ænas, 150, 188; livia, 212, palumbus, 149

Colymbus glacialis, 177, 189; septentrionalis, 36, 177

Coot, 103

d

Coracias garrulus, 466 Cormorant, 105; var., 99

Corvus affinis, 211; corax, 111, 190; cornix, 34, 187, 208; corone, 133, 148, 189; frugilegus, 148, 189, 359; monedula, 148, 190; umbrinus, 211

Corvdus cristatus, 210 Coturnix communis, 392

Cotyle obsoleta, 211; riparia, 149

COUNTY RECORDS :-

Bedfordshire - Natterjack Toad, 315; Breeding habits of birds, 436; Goldfinch, 463

Cambridgeshire - Nightjar, 182;

Wild life, 269

Cheshire - Oystercatcher, Black-headed Gull, 36; Redthroated Diver, 36; Great Crested Grebe, 37; Natterer's Bat, 51; Chiffchaff, 140; Smew, 143; Swallow, 121, 181; Curlew-Sandpiper, 145; Early migrants, 190; Noctule Bat, 307; Longeared Owl, 311; Greenshank, 393; Ruff, 393; Black Tern, 393; Great and Blue Tits, 430; White Wagtail, 430; Grey Phalarope, 435

Cornwall—Swallow, 180

Cumberland - Dipper, 179; Bernacle Goose, 392; Grey Goose,

Derbyshire — Ornithology of, 57; Bewick's Swan, 59; Merlin, 267 Devonshire—Ornithological notes, 110, 467

Essex-Golden Oriole, 232; Hawfinch, 263

Gloucestershire—Barn-Owl, 35 Hampshire—Lapwing, 108; Moorhen, 144; Blackbird, 144; Wildfowl, 146; Fecundity of fishes, 151; Red-backed Shrike, 387; Swift, 388, 434; Black Tern, 393; Summer migrants, 395

Hertfordshire-Hooded Crow, 34; Wren, 141; Cuckoo and Twite,

389; Goldfinch, 431

Kent — Fauna of "Cedars," 253;

Rudd, 256, 270; Dusky Redshank, 349; Flying Fish in Medway and Swale, 401

Lancashire - Ruddy Sheld-drake,

Middlesex - Pied Wagtail, 33; Zoological Society's Gardens, 39, 76, 115, 151, 191, 238, 271, 317, 351, 437, 471; Martin, 430; Gold-

finch, 431

Norfolk—Black-tailed Godwit, 70; Ornithological notes, 85, 388; Herring fleet (Yarmouth), 159 Cuckoo, 164; Partridge, 186; Badger, 231; Terns, 258; Pochard, 268; Heronry, 301; Malformed Lobster-claw, 350; Breydon, 367; Eagle-Owl, 392; Manx Shearwater, 395; Malformed Earthworm, 398; Noctule Bat, Fish-notes (Yarmouth), 427;441; Cats' feet, 462; Storm-Petrel, 465; Rare birds, 466

Northamptonshire--Crossbill, 346;

White Wagtail, 463

Northumberland - Wren, 179; Robin, 198; Rustic Bunting,

Nottinghamshire - Wood-Pigeon, 35; Stock-Dove, 35; Grey Crow, 35; Montagu's Harrier, 266; Dusky Thrush, 466

Oxfordshire - Peregrine Falcon, 184; Linnet, 346; Ornithology

of, 413, 447

Shropshire -- Lesser Horse-shoe Bat, 308; Red-backed Shrike, 309; Green Woodpecker, 347; Sorex minutus, 429

Somersetshire—Buffon's Skua, 36;

Cirl-Bunting, 70

Staffordshire—Lapwing, 108, 145 Suffolk—Ornithological notes, 72; Moorhen, 107; Bat, 231; Tawny Owl, 263; Mus flavicollis, 309; Starling, 310; Nest-boxes, 314; Tond, 315; White Stoat, 429; Cuckoo and its Foster-parents, 433

Surrey—De Winton's Mouse, 69; Wren, 107; Great Crested Grebe, 109, 348; Ornithological notes, 147, 187, 236, 237, 349; Swallow, 181; Dunlin, 348; Spatula clypeata, 435; Peregrine Falcon, 464

Sussex—Wren, 140; Water-Pipit, 142; "Rat and Sparrow Club," 198; Long-eared Owl, 265; Night-Heron, 267; Black-headed Bunting, 267; Great Sedge-Warbler, 267; Stoat, 308; Dartford Warbler, 309; Palmated Newt, 316; Squacco Heron, 349; Icterine Warbler, 349; Swift, 464; Leach's Petrel, 465

Warwickshire—Peregrine Falcon, 184

Worcestershire—Wren, 141; Manx Shearwater, 394

Yorkshire — Willow-Wren, 32; Chiffchaff, 32; Waterhen, 35; Leisler's Bat, 68; Notes, 72; Rat-tailed Opossum, 73; Opah, 75; Marine Zoology in East Riding, 80; Long-eared Owl, 183; Rock-Dove, 313, 351; Great and Blue Tits, 346; Cuckoo, 348; Ring-Dove, 359; Stock-Dove, 359; Yellowhammer, 359; Beeeater, 389; Twite, 431; Cuckoo and Twite, 432; Malformed Earthworm, 470

Crake, Baillon's, in North Wales, 465; Corn, 425

Creeper, Tree, 48, 381

Crex pratensis, 190

Crossbill breeding in Northamptonshire, 346; feeding habits, 459

Crow, concealed nests of, 416; Carrion, 50, 456; Grey, decrease at Rainsworth, Notts, 35; Hooded, at St, Albans, 34

Cuckoo, 386; foster-parents of, 88, 232, 310, 348, 389, 432, 433; young, in Stonechat's nest, 88,—diary of observations on, 164,—ejecting nestling Wren (fig.), 166,—wing, on fourth day (fig.), 167

Cuculus canorus, 88, 147, 164, 232, 310, 348, 386, 389, 432, 433

Curlew, 102,—and its prey, 368; Stone, 457

Cursorius gallicus, 212 Cyanecula wolfi, 209 Cyclodus nigroluteus, 127 Cygnus bewicki, 58; musicus, 189 Cynomys ludovicianus, 238 Cypselus apus, 148, 464; murinus, 210

Dafila acuta, 208 Daulias luscinia, 148, 349

Deer, Wild Red, in Co. Donegal, 278; near Ulswater, query respecting, 437

Delphinapterus leucas, 73

Dendrocopus major, 147; minor, 148

Dendroica vigorsii, 297

Derbyshire, ornithological notes from, 57

Devon, North, ornithological notes from, 467

Diary of observations on a young Cuckoo (fig.), 64

Didelphys murina, 72, 73

Dinosaur, largest skeleton of a (Plate III.), 161

Diplodocus carnegii (fig.), 161

Dipper, 47, 380; autumn song, 71; early nesting, 179; nesting in Renfrewshire, 463

'Discovery' Expedition to Antarctic Regions, Report on Natural History Collections made by, 199

tory Collections made by, 199
Diver, Black-throated, 426; Great,
Welsh name for, 156; Great
Northern, 103; Red-throated, in
Cheshire, 36,—at Anglesea, 426

Dotterel in north-west of England, query respecting, 437; in Oxfordshire, 458

Dove, Ring, 50,—var., 359; Rock (?), nesting in Rabbits' holes, 268, 313, 351; Stock, 35, 469,—var. 98, 359

Driotriorchis spectabilis, 471 Duck, Red-crested, 89; Pintail, 470; Tufted, 103, 423; Wild, 103

Dunlin, 101, 423, 458; in Surrey, 348

Eagle, Sea, 89

Earthworm, malformed, at Great Yarmouth (fig.), 398; at Hull, 470 Eels, strange fatality amongst, 443 Egg-depositing by Cuckoo, 88, 232,

810, 348, 389, 432, 433
Egypt, birds seen in December,
January, and February, 208
Fider Pacific in Orkney 74, 142

Eider, Pacific, in Orkney, 74, 142, 143, 185

Elanus cæruleus, 211

Emberiza aureola, 466; cirlus, 70; citrinella, 132, 149, 347; melanocephala, 267; miliaria, 149, 176; rustica, 279; schæniclus, 187, 349

Golden-eye, 103, 423

Equus hemionus indicus, 115; kiang, 115; onager, 115
Erinaceus europæus, 73
Erismatura leucocephala, 211
Erithacus rubecula, 32, 148, 212
Eudyptula minor, 329
Eunectes notæus, 438
Exocœtus evolans, 403; lineatus, 404; volitans (?), 401

Falco æsalon, 74, 266, 267; pere-grinus, 110, 184, 189, 464; tinnunculus, 147, 210 Falcon, Peregrine, 46; in Warwickshire and Oxon, 184, 458; in Surrey, 464 Fauna of "Cedars," Lee, Kent, 253 Felis pardus tullianus, 115; lynx, 115 Fieldfare, 48, 378 Finch, Citril, 89; Serin, 89 Fish, heavy Freshwater, taken in 1904, 80; fecundity of, 151; Flat, migration of, 280; Flying, in Medway and Swale (Kent), 401; deformed, 442; "Bull-dog" codling, 445; and ova placed in Thames, 356 Fish-notes from Great Yarmouth for 1905 (fig.), 441 Flamingo (?), 89 Flycatcher, Red-breasted, 89; Spot-

ted, 383
Flying Fish in Medway and Swale (Kent), (fig.), 401
Fratercula arctica, 190
Fregilupus varius, 418
Fringilla cœlebs, 132, 149
Fulica atra, 150, 211

Fuligula cristata, 150, 178, 188; ferina, 150, 188; marila, 58, 188

Galeodes lucasii, 272 Gallinago cœlestis, 176, 209; major, 466 Gallinula chloropus, 35, 150, 190 Gallus bankiva, 77 Gannet, 384 Garganey, 384 Garrulus glandarius, 237, 349 Gecinus canus, 133; viridis, 148, 347 Geocichla macrorhyncha, 125 Giraffa camelopardalis antiquorum, 191; camelopardalis? peralta, 191; wardi, 191 Giza Zoological Gardens, 355 Godwit, Black-tailed, in Norfolk, 70; in Aberdeenshire, 466 Goldcrest, 879

Goldfinch, 49, 127, 431, 463, 468 Goose, Bernacle, early arrival, 392; Brent, 459; Grey, near Carlisle, Gorals of India and Burma (Plate I.), Goura victoriæ, 40 Graucalus parvirostris, 125 Grebe, Great Crested, late nesting, 37,-in Richmond Park, 109,-in Scotland, 314,-in Surrey, 348; Little, 104; Sclavonian, 469 Greenfinch, 49; and Hedge-Sparrow rearing each other's young, 431 Greenshank in Cheshire, 393; in North Devon, 469 Grindelwald, Switzerland, birds observed at, 129 Grouse disease, 356; Red, 185 Grus cinerea, 211 Guillemot, 104 Gull, Black-headed, assuming hood in winter, 36,—at Lleyn, 105; Common, 105; Great Black-backed, 106, 470; Herring, 105; Kittiwake, 106, 425; Lesser Black-backed, 106 Gulls and their prey, 372 Gymnorhina hyperleuca, 126 Gyps fulvus, 211, 471; kolbii, 471; rüppellii, 471

Hæmatopus ostralegus, 35 Hampshire Avon, wildfowl on, during winter of 1904-5, 146 Harrier, Hen, 468; Montagu's, at Rainworth, 266 Hawfinch in Epping Forest, 263 Hawk, Sparrow, 47 Hedgehog, var., 73 Herring fishery, Yarmouth (1904), 159 Heron, 103; Night, in Sussex, 267; Squacco, in Sussex, 349 Heronry, a Norfolk, 301 Hieractus fasciatus, 211 Hierofalco candicans, 110 Hinulia?sp., 126 Hirundo erythrogastra, 296; rustica, 121, 149, 180, 181; savignii, 209 Hobby, 458 Holibut-Plaice, var., 444 Hoopoe, 456 Hoplopterus spinosus, 209 Hunstanton, ornithological notes from, 388 Hydrochelidon nigra, 393

Hymenoptera, Oriental, bequeathed to Oxford University Museum by Mr. G. A. Rothney, 354 Hypolais icterina, 349

Immigration of birds at Pwllheli, 170

'Index Zoologicus' of C. O. Waterhouse, additions and corrections to, 63

India and Burma, Gorals of, 81 International Ornithological Congress, 156

IRELAND—Seals, 134; Ornithological notes, 174; Cuckoo, 232; Longeared Owl, 238, 234, 264; Wild Red Deer, 278; Quail, 392 Iynx torquilla, 148

Jackdaw, 50 Jay, 50, 385 Junco hyemalis, 298

Kestrel, 46, 456; and Sparrow-Hawk, fight between, 178 Killala Bay and Moy Estuary, Co. Mayo, Seals in, 134 Kingfisher, 385 Knot, 101

Labrax lupus, 75 Labrus maculatus, 441 Lamna cornubica, 75 Lampris luna, 75

Land-birds observed in North Atlantic and Gulf of St. Lawrence (1904), 293

Land-mammals of Clyde faunal area, 358

Lanius collurio, 149, 309, 387; excubitor, 73

Lapwing, peculiar nests and nestingsites of, 108, 145,—egg, var., 60

Lark, Sky, 48; var., 99 Larus argentatus, 177; cachinnans, 208; canus, 177, 215; fuscus, 177; leucopterus, 74; marinus, 177, 210, 237; ridibundus, 36, 177, 188

Leuciscus erythropthalmus, 270 Ligurinus chloris, 149

Limnotragus gratus, 352 Limosa belgica, 70; lapponica, 466 Linnet, 49, 384; late nesting, 346; var., 99

Linota cannabina, 149, 187, 188, 346; flavirostris, 348, 389, 481; montium, 311; rufescens, 187

Liparis montagui, 74

Lleyn, ornithological notes from, 41, 101, 170
Lobster-claw, remarkable (fig.), 350
Lophius piscatorius, 442
Loxia curvirostra, 346; curvirostra anglica, 347; curvirostra scotica, 347; leucoptera, 294
Lycosa portosantana, 239
Lyriocephalus scutatus, 438

Magpie, 50
Mallard, var., 98
Malurus gouldi, 125
Mammals of Great Britain and Ireland, 31; land-, of Clyde faunal area, 358
Mareca penelope, 178, 208
Marine Zoology in East Riding (1904), 80
Martin, House, 384; Sand, 383

Martins' nests, late, 430
Megalestris catarrhactes, 190
Meles taxus, 231
Melicrax gabar, 212
Meliornis novæ-hollandiæ, 127
Menagerie medicines, 249
Merganser, Red-breasted, 458
Mergus albellus, 143
Merlin, 46; nesting in Breconshire, 266,—in Derbyshire, 267
Mergans opiester, 2804, vividia, 210

266,—in Derbyshire, 267 Merops apiaster, 389; viridis, 210 Microtis orcadensis, 271 Midas rosalia, 39

Migrants, early, near Chester, 190; summer, in Hants, 395 Migration of birds on Norfolk coast,

85, 88,—at Pwllheli, 170; lecture on, 241; of flat-fish, 280 Mills, "Brusher," death of, 277 Milvus ægyptius, 208 Molge palmata, 316

Montifringilla nivalis, 132 Moorhen, 103; var., 107, 144 Motacilla alba, 187, 208, 430, 463; lugubris, 33, 149, 348; melanope, 187; raii, 149; vidua, 212; viridis,

210 Mouse, De Winton's, in Surrey, 69 Mullus barbatus, 443

Mus alexandrinus, 202, 203; decumanus, 206; flavicollis, in Suffolk, 309; hibernicus, 206; rattus and its British allies, true position of (Plate IV.), 201–207; rattus alexandrinus, 203; rattus ater, 205; rattus rattus, 204, 205; sylvaticus wintoni, 69

Muscicapa grisola, 148, 176

Museum, Australian, 199; Indian, 354; Oxford University, 354 Myotis daubentoni, 308; nattereri, 51 Myxine glutinosa, 74

Naia melanoleuca, 358
Natal Government Entomologist,
Fourth Report of, 277
Neophron perenopterus, 211
Nephrops norvegicus, 350
Nest-boxes, notes on, 314
Nesting of Pied Wagtail in a hedge.

Nesting of Pied Wagtail in a hedge, 33; late, of Waterhen, 35,—Great Crested Grebe, 37,—Dipper, 179,—Linnet, 346,—Yellow Bunting, 347,—Martin, 430; of birds within other birds' nests, 33, 69, 71; habits of Wren, 107, 140, 141, 179,—Nightjar, 88; of Lapwing, 108, 145; abnormal, of Swallow, 121, 180, 181; of Robin on a waggon-axle, 198; of Merlin in Breconshire, 266,—in Derbyshire, 267; of Rock-Dove (?) in Rabbits' holes, 268, 313, 351; of Dartford Warbler in Sussex, 309; of birds in Andalusia, 321, 397; of Dipper in Renfrewshire, 463

Nests, abnormal, of Swallow (Plate II.), 121, 180, 181; supernumerary, of Wren, 140; and nesting-sites of Lapwing, peculiar, 108, 145

Nettion crecca, 208

Newfoundland Seal-fishery in 1905,

Newt, Palmated, in Western Carnarvonshire and Bardsey Island, 316; near Hastings, 316

Nightingales in Algeria singing in August, 430

Nightjar, 385; young, movement of, 88, 182

Ninox maculata, 124 Noctilis hipposideros, 308 Norfolk, ornithological notes from, 85, 388

Nucifraga caryocatactes, 132 Numenius arquata, 102, 112; phæopus, 176

Nyctea scandica, 189 Nycticorax griseus, 209, 267

OBITUARY-

Barrett, Charles Golding, 77 Blanford, William Thomas, 272 Boucard, Adolphe, 156 Douglas, John William, 353 Howes, Prof. George Bond, 116

Irby, Col. L. Howard, 274 Packard, Alpheus Spring, 192 Pickard-Cambridge, Frederick Octavius, 117 Oceanodroma leucorrhoa, 465 Œdemia nigra, 62, 178 Opah (fig.), 75 Opossum, Rat-tailed (fig.), 73 Oriole, Golden, in Epping Forest, 232 Oriolus galbulæ, 232 Orkney, Pacific Eider in, 74, 142, 143, 185 Orthagoriscus mola, 444 Ortolan, 89 Oryx leucoryx, 471 Osprey, 47, 456; how does it carry its prey? 435, 464 Ouzel, Ring, 457 Owl, Barn, late breeding, 35; Eagle, sounds produced by, 313, 392; Long-eared, 386,—sounds produced by, 183, 233, 234, 264, 265, 311, 313; tawny, 263 Owls, sounds produced by, 183, 233, 234, 264, 265, 311, 313, 392 Oxfordshire, ornithology of, 413, 446 Oystercatcher inland in Cheshire, 35;

at Lleyn, 101 Pachycephala glaucura, 126 Pagellus centrodontus, 441 Pandion haliaëtus, 150, 211 Papio anubis, 39; sphinx, 39 Pardalotus punctatus, 127 Partridge, 50; var., 99 Partridges, do they migrate? 186, 314 Parus borealis, 131; britannicus, 149; cæruleus, 131, 149; major, 131, 149; palustris, 149 Passer domesticus, 74, 132, 149, 181, 208; montanus, 149, 176, 349, 464 Passerculus sandwichensis savanna, 293 Passerella iliaca, 293 Pastor, Rose-coloured, 458 Peewit, 101 Pelecanus onocrotalus, 209 Penguin, Little, 329; a nestling, 330 Perca fluviatilis, 151 Perdix cinerea, 150, 176; montana, 99 Peristethus cataphractum, 442 Petrel, Leach's, in Sussex, Storm, at Yarmouth, 465 Petrœca phœnicea, 126 Phalacrocorax carbo, 177 Phalarope, Grey, 435, 469

Phalaropus fulicarius, 111, 435

Phasianus colchicus, 150 Phœnicopterus roseus, 210 Phylloscopus rufus, 32, 110, 140, 148, 349; sibilatrix, 149; trochilus, 32, 148, 209 Pica rustica, 133 Pigeon, Wood, 35 Pike, plague of, 277 Pipit, Meadow, 48; Rock, 48; Water, at Eastbourne, 142 Platalea leucorodia, 211 Plectrophenax nivalis, 294 Plover, Golden, 101; Ringed, 101, 423 Plusia moneta, 255; populi, 255 Plutella cruciferarum, 302 Pluvianus ægyptius, 212 Pochard, 103: var., 268 Podargus strigoides, 127 Podicipes cristatus, 37, 109, 150, 188, 314, 348; fluviatilis, 177, 350 Porzana bailloni, 465 Position of sitting birds in relation to wind, 236 "Postal anomalies and their effects," 199 Pratincola maura, 466; rubetra, 148, 190; rubicola, 148, 176, 187, 212 Preservation of birds from a gardener's point of view, 159 Prinia gracilis, 210 Procellaria pelagica, 465 Pterygistes leisleri, 68; noctula, 307 Ptilotis flavigularis, 125 Puffin, 172, 425 Puffinus anglorum, 394, 395; griseus, 74; yelkouanus, 74 Putorius ermineus, 429 Pycronotus arsinoë, 210 Pyrrhocorax alpinus, 132 Pyrrhula europæa, 132, 149, 349

Quail, 423, 457, 469; in Ireland, 392

Raia miraletus, 441
Rallus aquaticus, 62, 111
"Rat and Sparrow Club" near
Hurstmonceux, Sussex, 198
Raven, 49, 467
Razorbill, 104
Redshank, 101, 469,—var., 98, 99;
Dusky, in Kent, 349
Redstart, 378
Redwing, 47; var., 99
Regulus calendula, 297; cristatus, 110, 130, 148
Rhachianectes glaucus, 29
Rnamphastus carinatus, 239

Rhipidura diemenensis, 124
Richmond Park, Surrey, notes on ornithology of, 147, 187, 236, 349
Rissa tridactyla, 177
Robin, 48; nest of, on waggon-axle, 198
Roller in Aberdeenshire, 466
Rook, 50; var., 99; execution of a, 198; economical importance of, in Hungary, 359
Rotufa dealbata, 387
Rudd, what is the heaviest weight reached by?, 256, 270 (fig.)
Ruff in Cheshire, 393
Ruticilla phænicurus, 148

Sanderling, 102, 425 Sand-Grouse, Pallas's, 457 Sandpiper, Common, 425; Curlew, 469,—in Dee marshes in February, 145; Pectoral, 89; Purple, 101 Saxicola cenanthe, 148, 297; deserti, 209; leucura, 212; lugens, 209 Scarborough, notes from (1904), 72; mammals, 72; birds, 73; fishes, Scolopax rusticula, 189 Scombresox saurus, 409 Scorpæna dactyloptera, 443 Scoter, 103, 423 Scotopelia bouvieri, 471 Scotland.—Little Shrew, 31; Swallow, 69; Starling, 263; Owls, 264, 313, 351; Rock-Dove (?), 268, 313, 314; Cuckoo, 310; Great Crested Grebe, 314; Yellow Bunting, 347; Land-mammals of Clyde faunal area, 358; Swift, 388; Wild Red Deer, 437; Dotterel, 437; Dipper, 463; Tree-Sparrow, 464; Sandwich Tern, 465; Rare birds, 466 Seal and Whale fishery in 1904, notes on, 22 Seal fishery, Newfoundland, in 1905, Seals in Killala Bay and Moy Estuary, Co. Mayo, 134 Sea-Serpent," animal or animals generally referred to as, 113 Sericornis humilis, 126 Shag, 105 Shearwater, Manx, in Worcester-shire, 394; at Yarmouth, 395 Sheld-drake, Ruddy, in Lancashire, 107 Shetland, notes from, 188; birds, 188; fishes, 190 Shoveler in Surrey, 435

Shrew, Little, in Aberdeenshire, 31; in Shropshire, 429

Shrike, Red-backed, 468; and its

prey, 309, 387

Singing haunts and habits of some British birds, 71; of Nightingales in Algeria in August, 430

Sitta cæsia, 131, 149; canadensis,

Skeleton of Dinosaur, largest, 161 Skua, Buffon's, in Somerset, 36; Richardson's, 171

Smew in Cheshire, 143

Snipe, 102; Great, in Aberdeenshire, 466; Sabine's, 458

Solea lascaris, 442

Somateria v-nigrum, 74, 142, 143,

Song, autumn, of Willow-Wren, 32; of Chiffchaff, 32; of Dipper, 71 Sorex minutus, 31, 72; in Shropshire,

Sounds produced by Owls, 183, 233, 234, 264, 265, 311, 313, 392

Sparrow-Hawk and Kestrel, fight between, 178

Sparrow, Hedge, 48,-and Greenfinch rearing each other's young, 431; House, 49,-var., 74; Tree, in East Lothian, 464

Spatula clypeata, 73, 112, 187, 208;

in Surrey, 435

Spectyto cunicularia, 238

Spinus pinus, 299 Spizella monticola, 299

Spoonbill, 89

Squirrel, disappearance of a local form, 387

Starling, 49, 110,-var., 99, 100, 263, 310; Réunion, 418

Stercorarius catarrhactes, 74; parasiticus, 36; crepidatus, 190

Sterna cantiaca, 465; fluviatilis, 177, 259; minuta, 177, 259

Stint, Little, 424

Stoat, winter whitening in Britain, 308; white at end of September,

Stonechat, 48, 466; var., 99 Strepsilas interpres, 176 Strix flammea, 35

Sturnus vulgaris, 32, 110, 149, 210,

263, 299

Suffolk, ornithological notes from, 72 Sula bassana, 177; serrator, 127 Sun-fish at Great Yarmouth, 444

Surrey, ornithological notes from, 147, 187, 236, 237, 349

Swallow, 383, 469; late breeding, 69; var., 99; abnormal nests of, 121, 180, 181

Swan, Bewick's, 58

Swift, 385; late stay, 388, 434, 464 Swimming of Bat, 231

Swordfish and Thresher v. Whale,

Sylvia atricapilla, 148; cinerea, 148; curruca, 110, 148; hortensis, 148, 349; melanocephala, 212; rueppelli, 210; undata, 309 Syrnium aluco, 147, 183, 263

Tadorna casarea, 107; cornuta, 112 Tasmania, South, monthly notes taken in, for 1902, 124; Notes taken in 1903, 329; Little Penguin,

Teal, 103

Tern, Arctic, 425; Black, in Cheshire, 393,-near Ringwood, 393, -at Bampton, 449,-in Oxfordshire, 458; Common, 425; Little, 425, 469; Sandwich, 465

Terns, Norfolk, 258

Thames, fish and ova placed in, 356 Thornback-Ray, var., 445

Thrush, Dusky, in Notts, 466; Mistle, 47, 468; Song, 47

Thryonomys (or Aulacodus) swinderianus, 471

Tit, Blue, 48,-breeding habits, 309, 346, 430; Coal, 48, 381; Great, 48,—breeding habits, 309, 346, 430; Long-tailed, 48, 381

Toad, Common, var., 315; Natterjack, in Bedfordshire, 315

Torpedo hebetans, 112

Totanus calidris, 176, 210; fuscus, 349; hypoleucus, 150, 176, 211; ochropus, 209; stagnatalis, 209

Trachurus trachurus, 446 Trapelaphus scriptus, 271

Trigla cuculus, 441; hirundo, 442; lineata, 441

Tringa alpina, 176, 348; subarquata, 145

Troglodytes parvulus, 107, 140, 141, 179

Turdus dubius, 466; iliacus, 176, 349; merula, 129, 148, 190, 212; musicus, 148, 212; pilaris, 148, 176; viscivorus, 148

Turnstone, 101, 423

Turtur communis, 150, 190; senegallensis, 212

Twite, breeding haunts of, 389, 431

Upupa epops, 175, 210 Uria troile, 177 Urotragus bedfordi (Plate I.), 83; evansi, 83; goral, 83 Ursus arctos, 39; piscator, 39

Vanellus vulgaris, 108, 145, 150, 209 Variety of Blackbird, 61, 99, 144; Chaffinch, 99; Cormorant, 99; Grey Wagtail (egg), 61; Hedge-hog, 73; Hedge-Accentor (egg), 87; Holibut-Plaice, 444; House-S7; Holibut-Plaice, 444; House-Sparrow, 74; Lapwing (egg), 60; Linnet, 99; Mallard, 98; Moorhen, 107, 144; Partridge, 99; Pochard, 268; Redstart, 98, 99; Redwing, 99; Rook, 99; Sky-Lark, 99; Starling, 99, 100, 263, 310; Stock-Dove, 98; Stonechat, 99; Swallow, 99; Thornback-Ray, 445; Toad, 315; Woodcock, 99 esperugo noctula, 307, 397, 497

Vesperugo noctula, 307, 397, 427 Vultur monachus, 211

Wagtail, Grey, 48, 382,—eggs, var., 61; Pied, 48,—nesting in a hedge, 83; White, 381, 468,—in autumn in Cheshire, 430,—in Northamptonshire, 463; Yellow, 382

Wales - Ornithological notes, 41, 101, 170; Dipper, 71; Red Grouse, 185; Birds of Anglesea, 213, 376, 423; Merlin, 266; Daubenton's Bat, 308; Palmated Newt, 316; Grey Goose, 392; Baillon's Crake, 465

Warbler, Aquatic, 89; Dartford, nesting in Sussex, 309; Garden,

379; Grasshopper, 380; Icterine, in Sussex, 349; Great Sedge, 380, -in Sussex, 267 Waterhen, nesting late in season, 35 Water-Rail, 423 Welsh bird notes, some old, 37 Whale and Seal fishery in 1904, 22 Whale v. Swordfish and Thresher,

31 Wheatear, 378 Whimbrel, 425 Whinchat, 378 Whitethroat, 378 Wigeon, 103, 386

Wildfowl on the Hampshire Avon during winter of 1904-5, 146 Wild life, effects of rural depopula-

tion on, 269 Woodcock, 102, 424; var., 99

Woodpecker, Great Spotted, 469; Green, 50, 347

Wren, Common, 48,—nesting habits, 107, 140, 141, 179; Fire-crested, 171; Golden-crested, 48; Willow, 379,—autumn song, 32; Wood, 380

Yarmouth Herring fleet (1904), 159 Yellowhammer, Pied, 359

Zoological Gardens, Giza, 355 Zoological idealism, 157; notes from Scarborough, 72

Zoological Society's Gardens, additions to, 39, 76, 115, 151, 191, 238, 271, 317, 351, 437, 471

Zoology, Marine, in East Riding (1904), 80

### PLATES.

		PAGE
Plate I. A Grey Himalayan Goral (Urotragus bedfordi), formerly living in Woburn Park	to face	81
II Nosta of Smallow (Himmedo mustica)	- 10	121
TII View of the Chaleton of Diale James as act on any	"	121
liminary to shipment in the Hall of the Western		
Pennsylvania Exposition Society in Pittsburg, Pa.	.,	161
" IV. The Black Alexandrine Rat, subsp. nov. (Mus		
rattus ater)	,,	201
. V. Booted Eagle and Nest	,,	321
ILLUSTRATIONS IN TEXT.		
Rat-tailed Opossum (Didelphys murina)		73
Opah (Lampris luna)		75
Avocets and Spoonbills on Breydon Broad		93
Restoration of Diplodocus, modelled by Dr. W. J. Holland		163
Cuckoo ejecting nestling Wren		166
Young Cuckoo's wing on the fourth day		167
Ringed Snake (Tropidonotus natrix)		256
Diagram of Rudd (Leuciscus erythropthalmus)		270
A nestling Penguin		330
Malformed Lobster-claw		350
Malformed Earthworm		398
Rough Chart of Medway and Swale neighbourhoods	2500	403
Some ovarian eggs, in different stages of development, from S	wale	
Flying Fish (Exocætus lineatus)		409
Unripe egg of the Saury Pike or Skipper (Scombresox saurus)		409
Ripe eggs of the Gar-Fish (Belone vulgaris)		409
"Bull-dog" Codling.		445
Remarkable Cats' feet		462
inclination Cats leet	•	402



